

# Contents

## Volume 213 (1989)

### Special Issue

## Developments in Genetic Toxicology

edited by Friedrich E. Würgler

### Preface

F.E. Würgler (Switzerland)	1
----------------------------	---

Mutagens as carcinogens: development of current concepts	
P.D. Lawley (Great Britain)	3
Screening for possible human carcinogens and mutagens: a symposium report	
I.-D. Adler, J. Ashby and F.E. Würgler (F.R.G., U.K., Switzerland)	27
Mammalian cells in culture	
Report of a Participant Workshop	
D.J. Kirkland (Great Britain)	41
Screening for possible human carcinogens and mutagens: False positives, false negatives: statistical implications	
D.P. Lovell (Great Britain)	43
DNA amplification in genetic toxicology	
B.L. Pool, A.Ö. Yalkinoglu, P. Klein and J.R. Schlehofer (F.R.G.)	61
Detection of somatic mutants in man: HPRT mutations in lymphocytes and hemoglobin mutations in erythrocytes	
A.D. Bates, L.F. Bernini, A.T. Natarajan, J.S. Ploem, N.P. Verwoerd, J. Cole, M.H.L. Green, C.F. Arlett and P.N. Norris (The Netherlands, U.K.)	73
Microsomal cytochrome P-450: substrate binding, membrane interactions, and topology	
G. Vergères, K.H. Winterhalter and C. Richter (Switzerland)	83
The automated bone marrow micronucleus test	
F. Romagna and C.D. Staniforth (Switzerland, U.K.)	91

### [end of special issue]

<i>Saccharomyces cerevisiae</i> mutants with enhanced induced mutation and altered mitotic gene conversion	
E.L. Ivanov, S.V. Kovaltzova and V.G. Korolev (U.S.S.R.)	105
The distribution of <i>Msp</i> I-induced breaks in human lymphocyte chromosomes and its relationship to common fragile sites	
B. Porfirio, B. Tedeschi, P. Vernole, D. Caporossi and B. Nicoletti (Italy)	117
Mutagenesis of $\Phi$ X174 <i>am3 cs70</i> incorporated into the genome of mouse L-cells	
J.G. Burkhardt and H.V. Mallng (U.S.A.)	125
Changes in the size of pulse-labelled DNA fragments induced in human cells by inhibitors of uracil-DNA glycosylase and DNA methylation	
O.N. Aprelikova, V.M. Golubovskaya, I.A. Kusmin and N.V. Tomilin (U.S.S.R.)	135
The effects of 1,6-dinitropyrene on spindle morphology in transformed human cells	
K. Adams, A. Lafi and J.M. Parry (Great Britain)	141
Temperature-dependent mutational specificity of an <i>Escherichia coli</i> mutator, <i>dnaQ49</i> , defective in 3' $\rightarrow$ 5' exonuclease (proofreading) activity	
R.J. Isbell and R.G. Fowler (U.S.A.)	149
Differential metabolism of sodium azide in maize callus and germinating embryos	
S.B. Dotson and D.A. Somers (U.S.A.)	157
RecA protein inhibits in vitro replication of single-stranded DNA with DNA polymerase III holoenzyme of <i>Escherichia coli</i>	
H. Shwartz and Z. Livneh (Israel)	165

Time course of enhancement of chromosomal aberration production in human lymphocytes by post-treatment with aphidicolin following X-irradiation in G <sub>2</sub> M.A. Bender (U.S.A.)	175
Production of DNA single-strand breaks in unstimulated splenocytes by dimethylnitrosamine B.-S. Kim, K.-H. Yang, H.G. Haggerty and M.P. Holsapple (U.S.A., Korea)	185
Suppressing effect of tannic acid on the frequencies of mutagen-induced sister-chromatid exchanges in mammalian cells Y.F. Sasaki, H. Imanishi, T. Ohta, M. Watanabe, K. Matsumoto and Y. Shirasu (Japan)	195
Autoradiographic detection of mutation to exotoxin-A resistance in mouse fibroblasts treated with ethyl methane-sulfonate, X-rays and ultraviolet light M. Tiah and A. Ronen (Israel)	205
Role of hemin in the inhibition of mutagenic activity of 3-amino-1-methyl-5 <i>H</i> -pyrido[4,3- <i>b</i> ]indole (Trp-P-2) and other aminoazaarenes S. Arimoto and H. Hayatsu (Japan)	217
Alkaline elution of DNA from stomach pyloric mucosa of rats treated with glyoxal C. Furihata, A. Hatta, Y. Sato and T. Matsushima (Japan)	227
Induction of chromosomal aberrations in CHO cells by restriction endonucleases: effects of blunt- and cohesive-ended double-strand breaks in cells treated by 'pellet' methods P.E. Bryant and A.F. Christie (U.K.)	233
Effects of iron chelators and glutathione depletion on the induction and repair of chromosomal aberrations by <i>tert</i> -butyl hydroperoxide in cultured Chinese hamster cells T. Ochi (Japan)	243
Cytogenetical characterization of Chinese hamster ovary X-ray-sensitive mutant cells xrs 5 and xrs 6. VII. Complementation analysis of X-irradiated wild-type CHO-K1 and xrs mutant cells using the premature chromosome condensation technique F. Darroudi and A.T. Natarajan (The Netherlands)	249
<i>Contents</i> , Vol. 213 (1989)	257

